

ABSTRACT

Embodiments of the invention involve UV resistant liquid crystal cells. One embodiment of the invention is to increase the volume of the liquid crystal material that is stored inside the cell. For example, trenches may be used to provide reservoirs that hold the additional liquid crystal material. Another embodiment of the invention uses an inorganic alignment layer in the cell, instead of using an organic material as the alignment layer. A further embodiment of the invention uses a pump to circulate liquid crystal material through the cell. The inventive cell can be used as a SLM in photolithographic imaging systems.